

AF/26747

TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No.
ITL.0566US

In Re Application Of: Edward O. Clapper

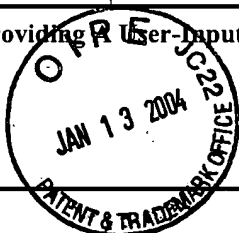
Serial No.
09/871,270

Filing Date
May 31, 2001

Examiner
Regina Liang

Group Art Unit
2674

Invention: Providing a User-Input Device



RECEIVED

JAN 15 2004

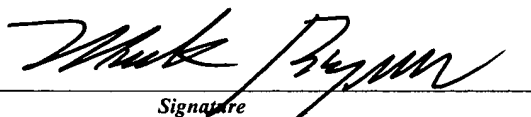
Technology Center 2600

TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on November 10, 2003

The fee for filing this Appeal Brief is: \$330.00

- ☒ A check in the amount of the fee is enclosed.
- ☐ The Director has already been authorized to charge fees in this application to a Deposit Account.
- ☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 20-1504


Signature

Dated: January 7, 2004

Mark J. Rozman, Reg. No. 42,117
TROP, PRUNER & HU, P.C.
8554 Katy Freeway, Suite 100
Houston, TX 77024



21906
PATENT TRADEMARK OFFICE

I certify that this document and fee is being deposited on 01/07/2004 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Signature of Person Mailing Correspondence

Jennifer Juarez

Typed or Printed Name of Person Mailing Correspondence

CC:



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: EDWARD O. CLAPPER

Serial No.: 09/871,270

Filed: May 31, 2001

For: PROVIDING A USER-INPUT
DEVICE

§ Group Art Unit: 2674

§

§

§

§ Examiner: Regina Liang

§

§

§

§ Atty. Dkt. No.: INTL-0566-US
(P11337)

§

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RECEIVED

JAN 15 2004

Technology Center 2600

APPEAL BRIEF

Sir:

Applicant respectfully appeals from the final rejection mailed August 18, 2003.

I. REAL PARTY IN INTEREST

The real party in interest is the assignee Intel Corporation, the assignee of the present application by virtue of the assignment recorded at Reel/Frame 011878/0817.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF THE CLAIMS

The application was originally filed with claims 1-30. Claims 1-28, 31 and 33-37 are pending. Claims 1-28, 31 and 33-37 are the subject of this appeal.

IV. STATUS OF AMENDMENTS

All Amendments previously presented have been entered.

01/14/2004 AWONDAF1 00000067 09871270

01 FC:1402

330.00 DP

Date of Deposit: January 7, 2004

I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to the Mail Stop Appeal Brief-Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Jennifer Juarez

V. SUMMARY OF THE INVENTION

Referring now to Figure 1, a block diagram of one embodiment of a system 2 including a user-input device 4 communicatively coupled to a processor-based system 5 is illustrated. Examples of the processor-based system 5 may include a personal digital assistant, laptop computer, desktop computer, Internet appliance, and the like. The user-input device 4, in one embodiment, may function similar to an airbrush, where, in one embodiment, selected pixels of a display device attached to the processor-based system 5 may be illuminated as the user employs the user-input device 4.

The system 2, in one embodiment, includes one or more sensors 90(1-n) on the display device 50 for aiding in determining the position of the user-input device 4. In one embodiment, the position of the user-input device 4 may be made relative to the position of the display device 50. In one embodiment, the sensors 90(1-n) may aid in tracking the tip of the user-input device 4. The sensors 90(1-n) may either transmit, receive, or both receive and transmit signals to and from the user-input device 4 to ascertain the position of the user-input device 4. In one embodiment, ascertaining the position of the user-input device 4 may include determining the position of both ends of the user-input device 4. See Specification pp. 3-5.

Referring now to Figure 2, a block diagram of the user-input device 4 of Figure 1 is illustrated, in accordance with one embodiment of the present invention. The user-input device 4 includes a control unit 105 coupled to a storage unit 110, in one embodiment. The user-input device 4, in one embodiment, includes an input interface 115 for an activatable element 120. The activatable element 120 may take one of many forms, including a depressable button, for example. In one embodiment, the activatable element 120, when selected, may activate the user-input device 4, or, when in an unselected state, may deactivate the user-input device 4.

The user-input device 4, in one embodiment, includes a housing 122 having a first and a second sensor 125, 130 at opposite ends. The sensors 125, 130, in one embodiment, may be capable of assisting in providing information regarding the position or location of the user-input device 4 relative to the display device 50 of the processor-based system 5. This information, in one embodiment, is then relayed to the processor-based system 5 through an interface 135 of the user-input device 4. As described below, the sensors 125, 130 may be transmitters, receivers, or transceivers, in one embodiment.

In one embodiment, the sensors 125, 130 may be ultrasonic transducers located on each end of the user-input device 4. The first sensor 125 may be capable of detecting distance of the user-input device 4 relative to the display device 50 based on acoustic reflection time. The position of each sensor 125, 130, and hence the position of the user-input device 4, may be determined, in one embodiment, via triangulation from one or more transmitting sensors 90(1-n) attached to the display device 50. See Specification pp. 6-8.

In an alternative embodiment, the sensors 125, 130 may transmit signals that are received by the sensors 90(1-n). Tracking the movement of the sensors 125, 130 may allow the processor-based system 5 to calculate the velocity or speed of the front end of the user-input device 4. The position, orientation, and velocity/speed of the user-input device 4 may affect the “digital spray” (*i.e.*, which pixels are illuminated, the intensity of the illuminated pixels, and so forth) of the user-input device 4.

Referring now to Figure 3, a flow diagram of a method that may be implemented in the system 2 of Figure 1 is illustrated, in accordance with one embodiment of the present invention. The application 85 (see Figure 1) of the processor-based system 5 is initialized (at 310), in one embodiment. The location or position of the user-input device 4 is detected (at 320). The

processor-based system 5 illuminates (at 330) one or more pixels of the display device 50 based on the location of the user-input device 4 in response to the user selecting the activatable element 120. Thus, upon selecting the activatable element 120, in one embodiment, the user may utilize the user-input device 4 like an airbrush, where the user-input device 4 provides an effect of “spray painting” (where the illumination of pixels may symbolically represent paint) onto a graphical user interface of the display device 50. See Specification, pp. 8-10.

Referring now to Figure 4, a flow diagram of an alternative embodiment of a method is illustrated. The user initializes (at 410) the application 85. The application 85, in one embodiment, allows a user to select a color to which the one or more pixels may be illuminated. Upon detecting the selection of the activatable element 120, the application 85 of the processor-based system 5, in one embodiment, identifies (at 425) a portion of the area on the display device 50 the user desires to select (e.g., digitally paint) based on at least one of the location, orientation, and movement of the user-input device 4.

The processor-based system 5, in one embodiment, determines (at 430) a desired intensity level to which the pixels of the display device 50 are illuminated. The intensity level, in one embodiment, may depend on the amount of depression of the activatable element 120 (see Figure 2). That is, in one embodiment, the more the user depresses the activatable element 120 the more intense the “digital spray,” and vice-versa. Thus, similar to a conventional airbrush, the intensity of the “digital spray” may vary with the amount by which the activatable element 120 is depressed or to a level that it is selected.

The processor-based system 5, in one embodiment, displays (at 440) the selected (at 415) color in the identified (at 425) portion of the display device 50 at the determined (at 430)

intensity level. An “actual” airbrush feel may be provided to the user. See Specification, pp. 10-11.

Referring now to Figure 5, a stylized block diagram of an alternative embodiment of the user-input device 4 is illustrated. The user-input device 4, in one embodiment, includes the control unit 505 coupled to the storage unit 507. In one embodiment, the user-input device 4 includes an activatable element 510 that may be coupled to the input interface 509, which may be further coupled to the control unit 505. In one embodiment, a color adjustable element 512 may be coupled to the input interface 509. The color adjustable element 512, in one embodiment, allows the user to select a desired color from a spectrum of colors.

The user-input device 4 includes an aperture 520 on a first end of a housing 522. An optical sensor 530, in one embodiment, may be positioned to sense through the aperture 520. The position of the user-input device 4 may be determined, in one embodiment, by feeding back information that is “seen” by the optical sensor 530 to what is shown on the display device 50.

The user-input device 4 includes an air controller 535 that may be coupled to the control unit 505, where the air controller 535 may provide a feel of actual air while the user-input device 4 is in operation. The air controller 535 may be capable of regulating airflow for the air that is received through an air interface 540 and provided through the aperture 520. The user-input device 4 includes a light emitter block 545 that is capable of transmitting a light beam through the aperture 520. In one embodiment, the light emitter block 545 may project a “cone” of light from the first end of user-input device 4, representing the volume of space that would typically be occupied by atomized paint. The user-input device 4, in one embodiment, includes an output interface 555 coupled to the control unit 505. The output interface 555 serves an interface to a

speaker 560. In one embodiment, the speaker 560 may produce sounds similar to those produced by a conventional airbrush, for example. See Specification, pp. 12-14.

VI. ISSUES

- A. **Is Claim 26 Patentable Under 35 U.S.C. § 103(a) Over Shiga In View of Mallicoat?**
- B. **Are Claims 12-18, 24, 25, 27 and 28 Patentable Under 35 U.S.C. § 103(a) Over Shiga In View Of Mallicoat and In Further View Of Ward?**
- C. **Are Claims 31, 33-34, and 37 Patentable Under 35 U.S.C. § 103(a) Over Miller In View Of Wagner?**
- D. **Is Claim 35 Patentable Under 35 U.S.C. § 103(a) Over Miller In View Of Wagner?**
- E. **Is Claim 36 Patentable Under 35 U.S.C. § 103(a) Over Miller In View Of Wagner?**
- F. **Are Claims 1-11 Patentable Under 35 U.S.C. § 103(a) Over Wagner In View Of Ward and Shiga?**
- G. **Are Claims 19 and 20 Patentable Under 35 U.S.C. § 103(a) Over Shiga In View Of Mallicoat and Ward and In Further View of Chery?**
- H. **Are Claims 21-23 Patentable Under 35 U.S.C. § 103(a) Over Shiga In View Of Mallicoat and Ward and In Further View of Wagner?**
- I. **Are Claims 8 and 10 Patentable Under 35 U.S.C. § 112, ¶1?**
- J. **Are Claims 1-11 Patentable Under 35 U.S.C. § 112, ¶2?**
- K. **Are Claims 26-28 Are Patentable Under 35 U.S.C. § 112, ¶2?**

VII. GROUPING OF THE CLAIMS

The claims do not stand or fall together. For purposes of this appeal, Applicant has grouped together claims 12-18, 24, 25, 27 and 28; claims 31, 33-34, and 37; claims 1-11; claims 19 and 20; and claims 21-23, with regard to prior art rejections as set forth above. For purposes of §112, ¶1 rejections, claims 8 and 10 may be grouped together; for purposes of §112, ¶2 rejections, claims 1-11 may be grouped, and claims 26-28 may be grouped, as set forth above.

VIII. ARGUMENT

A. Claim 26 Is Patentable Under 35 U.S.C. § 103(a) Over Shiga In View of Mallicoat

Independent claim 26 recites a system that includes a user-input device having a controller to receive one or more signals from a plurality of sensors located on a display device, transmit information to the system regarding a position of the user-input device, and cause one or more pixels of the display device to activate based on that information. Claim 26 stands rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,028,595 (Shiga) in view of U.S. Patent No. 4,777,329 (Mallicoat). This rejection is improper.

With respect to Shiga, there is no teaching or suggestion therein for a controller in a user-input device to receive signals from sensors on a display device, or to transmit position information, nor to cause one or more pixels of a display device to activate based on information transmitted from the user-input device. In this regard, the user-input device of Shiga, namely positioning pen 5, does not include any controller.

Nor does Mallicoat teach or suggest causing one or more pixels of a display device to activate based on transmitted information, nor a controller that transmits information to a system regarding position of a user-input device. Instead, only an electromagnetic wave signal is sent back to a base unit from the user-input device of Mallicoat. There is no controller in the user-input device of Mallicoat to transmit information regarding a position of the device.

Further, there is no motivation to combine Shiga with Mallicoat. Shiga is directed to correcting position errors between a touch screen display and a pointing pen, in which the pointing pen sends light signals to the touch screen display. Shiga, col. 1, lns. 6-11. In contrast, Mallicoat relates to a graphic input system in which signals are transmitted from a base unit to a mobile element, and subsequent transmission of an electromagnetic signal from the mobile

element back to the base unit which determines position of the mobile element--not in the user-input device.

Thus, there is no teaching or suggestion in either reference to combine them to obtain claim 26. This is especially so, as neither reference teaches a controller in the user-input device, and certainly not such a controller to perform the claimed functions. Thus claim 26 is patentable and the rejection should be reversed.

B. Claims 12-18, 24, 25, 27 and 28 Are Patentable Under 35 U.S.C. § 103(a) Over Shiga In View Of Mallicoat and In Further View Of Ward

Claims 12-18, 24, 25, 27 and 28 stand rejected under §103(a) over Shiga and Mallicoat and further in view of U.S. Patent No. 6,184,873 (Ward). This rejection is improper. Independent claim 12 is a method claim that includes determining, in a user-input device, a distance of first and second ends of the user-input device relative to a display device; and activating one or more pixels of the display device based on the distance of the first and second ends relative to the display device. With respect to claim 12, the Examiner concedes that the combination of Shiga and Mallicoat do not determine, in a user-input device, a distance of two ends of the user-input device relative to display device. Final Office Action, p. 5.

Furthermore, Ward does not teach or suggest determining a distance of first and second ends of a user-input device relative to a display in the user-input device itself. In this regard, as noted by the Examiner, the multiple sensors of Ward are output elements. Final Office Action, p. 5. Nowhere does Ward teach or suggest that output signals from these output elements are detected in the pen, and processed therein for a determination of the distance between the first and second ends of the pen relative to a display device. Thus claims 12-18, 24, 25, 27 and 28 are patentable, and the rejection should be reversed.

C. Claims 31, 33-34, and 37 Are Patentable Under 35 U.S.C. § 103(a) Over Miller In View Of Wagner

Independent claim 31 recites a digital airbrush peripheral including a housing; an activatable element; a control unit to cause air to be generated in response to an activation of the activatable element; and an interface to communicate information regarding the activatable element to a data processing device.

Claims 31, 33-34, and 37 stand rejected under § 103(a) over U.S. Patent No. 5,646,650 (Miller) in view of U.S. Patent No. 5,767,843 (Wagner). Neither Wagner nor Miller teaches or suggests a control unit to cause air to be generated in response to an activation of an activatable element. In this regard, the portion of Wagner cited by the Examiner (see Final Office Action, page 6) nowhere teaches or suggests that such a control unit is present to generate air. Rather, an input lever of the device of Wagner *simulates* an airbrush. See, e.g., Wagner, col. 4, lns. 15-18. Clearly, such a simulated air brush does not cause air to be generated.

In addition, Miller has no air generation capability whatsoever. Thus claims 31, 33-34, and 37 are patentable over the proposed combination.

D. Claim 35 Is Patentable Under 35 U.S.C. § 103(a) Over Miller In View Of Wagner

Dependent claim 35 depends from claim 31 and further recites that the digital airbrush peripheral includes a processor to cause a light to be emitted from the digital airbrush peripheral indicating the color of the digital paint. In addition to the reasons set forth regarding claim 31 (*see* VIII.C), dependent claim 35 is further patentable as neither Miller nor Wagner teaches or suggests a processor to cause a light to be emitted from a digital airbrush. In this regard, the Examiner asserts that photo diodes 350-352 meet the claimed processor. Final Office Action, p. 7. However, such photo diodes clearly do not teach or suggest a processor to cause light to be emitted indicating the color of the digital paint. Thus the rejection should be reversed.

E. Claim 36 Is Patentable Under 35 U.S.C. § 103(a) Over Miller In View Of Wagner

Claim 36 depends from claim 31 and further recites a processor to generate sounds in response to a selection of the activatable element. In addition to the reasons set forth regarding claim 31 (*see* VIII.C), dependent claim 36 is further patentable as, conceded by the Examiner, neither Miller nor Wagner teach or suggest a processor to generate one or more sounds in response to selection of an activatable element. Thus the rejection should be reversed.

F. Claims 1-11 Are Patentable Under 35 U.S.C. § 103(a) Over Wagner In View Of Ward and Shiga

Claim 1 recites a user-input device having a housing with a first end and an opposite end; and a controller to indicate a position of the ends and to cause one or more pixels of a display device to activate based on the indicated position of at least the first end. Claim 1 and claims 2-11 depending therefrom stand rejected under §103 over Wagner in view of Ward and Shiga. This rejection is improper.

With respect to claim 1, neither Wagner, Ward, nor Shiga teach or suggest a controller within a user-input device to indicate a position of a first and opposite end of the user-input device. Ward and Shiga do not include any such controller in a user-input device to indicate the position of ends of the device. Further, Wagner does not include any suggestion or motivation to determine multiple positions of its user-input device. Thus for at least this reason claim 1 and claims 2-11 depending therefrom are patentable, and the rejection should be reversed.

G. Claims 19 and 20 Are Patentable Under 35 U.S.C. § 103(a) Over Shiga In View Of Mallicoat and Ward and In Further View of Chery

Claim 19 depends from claim 17 and further recites instructions to determine the speed of the user-input device as it is moved. Claims 19 and 20 stand rejected under § 103(a) over Shiga, Mallicoat, and Ward and further in view of U.S. Patent No. 6,104,387 (Chery). As discussed above (*see* VIII.B), claim 17 is patentable over Shiga, Mallicoat, and Ward (at least for the same

reasons discussed therein as to claim 12). Thus, none of the cited references teach or suggest determining the position of first and second ends of a user-input device in the user-input device.

Further, Chery does not teach or suggest determining a speed of a user-input device as it is moved, as contended by the Examiner. Final Office Action, p. 10. In this regard, the portion of Chery cited by the Examiner merely states that an image may be recorded by detecting the position of a user-input device at a sampling rate fast relative to the device. Chery, col. 4, ln. 64-col. 5, ln. 9. Thus none of the cited references, alone or in combination, teach or suggest a processor to determine the speed of the user-input device as it is moved.

For at least this reason, claims 19 and 20 are patentable over the proposed combination, and the rejection should be reversed.

H. Claims 21-23 Are Patentable Under 35 U.S.C. § 103(a) Over Shiga In View Of Mallicoat and Ward and In Further View of Wagner

Claim 21 depends from claim 17 and further recites instructions to detect an activation of an activatable element and to illuminate pixels of the display based on the activation. Claims 21-23 stand rejected under § 103(a) over Shiga, Mallicoat, and Ward and further in view of Wagner. For the same reasons discussed above with regard to claim 17 (*see* VIII.B), claim 21 is patentable over this combination. Claim 21 is further patentable, as the addition of Wagner does not teach or suggest instructions to determine a position of first and second ends of a user-input device in the user-input device. Thus the rejection should be reversed as to claim 21 and claims 22-23 depending therefrom.

I. Claims 8 and 10 Are Patentable Under 35 U.S.C. § 112, ¶1

Claims 8 and 10 were rejected under 35 U.S.C. § 112, ¶1. The rejection is improper. Both claims 8 and 10 are original claims of the patent application and as such constitute their own sufficient written description. *In re Koller*, 204 U.S.P.Q. 702 (C.C.P.A. 1980); *In re Wertheim*, 191 USPQ 90, 97 (CCPA 1976). This is especially so as “an applicant in a

mechanical case is allowed claims, when the art permits, which cover more than the specific embodiment shown.” *In re Newton*, 163 U.S.P.Q. 34, 39 (C.C.P.A. 1969). Thus claims 8 and 10 are patentable under 35 U.S.C. § 112, ¶1 and the rejection should be reversed.

J. Claims 1-11 Are Patentable Under 35 U.S.C. § 112, ¶2

Claims 1-11 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The rejection is improper. Claim 1 recites a user-input device that includes a housing with a first end and an opposite end; and a controller to indicate a position of the first end and the opposite end and to cause a display to activate based on the position of at least the first end of the housing. Claim 1 particularly points out and distinctly claims the subject matter, as the recited controller is adapted to indicate a position of a first end and an opposite end of a user-input device and cause one or more pixels to activate based on the indicated position of at least the first end. This claim recitation clearly finds support in the specification of the application, as the specification notes that “a sensor in the user-input device 4 may use the grid 92 [on display device 50], in one embodiment, to indicate the position of the user-input device 4 relative to the display device 50 or a portion of the display area of the display device 50.” See Specification, p. 6.

Thus, this claim recitation is clear, as it recites that the controller indicates two positions, and uses at least one to activate one or more display pixels, as described in the specification. Thus this rejection of claim 1 and claims 2-11 depending therefrom should be reversed.

K. Claims 26-28 Are Patentable Under 35 U.S.C. § 112, ¶2

Claim 26 recites a system including a user-input devices to receive signals from sensors located on a display device. Claim 26 and claims 27-28 depending therefrom stand rejected under §112, ¶2, as the Examiner states that the term “sensor” in claim 26 is “repugnant to the usual meaning of that term.” Final Office Action, p. 4. This is incorrect, as the term is consistent with the usual meaning of the term “sensor”. As defined in *Merriam-Webster’s*

Collegiate Dictionary, Tenth Edition (1993), a sensor is “a device that responds to a physical stimulus (as heat, light, sound, pressure, magnetism, or a particular motion) and transmits a resulting impulse (as for measurement or operating a control).” Exhibit A, p. 1066 (emphasis added) (previously attached to Reply to Paper No. 5, filed September 30, 2003).

Further, because a patentee is free to be his or her own lexicographer, a patentee may use terms in a manner contrary to or inconsistent with one or more of their ordinary meanings. *Hormone Research Foundation, Inc. v. Genentech Inc.*, 15 U.S.P.Q.2d 1039 (Fed. Cir. 1990). In this regard, the specification states that sensors “may be transmitters, receivers or transceivers, in one embodiment.” Specification, p. 7.

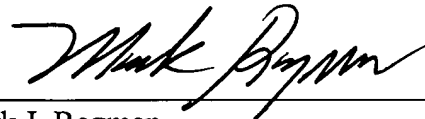
Thus the rejection of claims 26-28 should be reversed.

IX. CONCLUSION

Since the rejections of the claims are baseless, they should be reversed.

Respectfully submitted,

Date: January 7, 2004



Mark J. Rozman
Registration No. 42,117
TROP, PRUNER & HU, P.C.
8554 Katy Fwy, Ste 100
Houston, TX 77024-1805
512/418-9944 [Phone]
713/468-8883 [Facsimile]



21906

PATENT TRADEMARK OFFICE

APPENDIX OF CLAIMS

The claims on appeal are:

1. A user-input device, comprising:

a housing having a first end and an opposite end; and

a controller to indicate a position of the first end and the opposite end and to cause one or more pixels of a display device to activate based on the indicated position of at least the first end of the housing.
2. The user-input device of claim 1, further comprising a first sensor substantially at the first end and a second sensor substantially at the opposite end, the controller to indicate the position of the user-input device based on the signals sensed by the first and second sensors.
3. The user-input device of claim 2, wherein the first and the second sensors are transducers.
4. The user-input device of claim 1, wherein the controller is coupled to transmit the position of the first end of the housing to a processor-based system.
5. The user-input device of claim 1, wherein the controller is coupled to indicate the orientation of the housing to a processor-based system.
6. The user-input device of claim 5, wherein the controller is coupled to cause the one or more pixels to be activated based on the orientation of the housing.
7. The user-input device of claim 1, further comprising an activatable element disposed between the first and opposite ends, the controller to cause the one or more pixels to activate in response to an activation of the activatable element.
8. The user-input device of claim 7, wherein the controller is coupled to provide at least one of sound or air in response to the activation of the activatable element and wherein the

controller is coupled to adjust the intensity of pixels based on a selection level of the activatable element.

9. The user-input device of claim 7, wherein the controller is coupled to allow a selection of a color and wherein the controller is coupled to cause the one or more pixels to be activated with the selected color in response to the activation of the activatable element.

10. The user-input device of claim 1, further comprising an optical sensor located substantially at the first end, wherein the optical sensor is coupled to indicate the position of the housing.

11. The user-input device of claim 1, wherein the controller is coupled to cause the one or more pixels to be activated in an airbrush-like manner based on the position of the first end.

12. A method, comprising:
determining, in a user-input device, a distance of a first end and a second end of the user-input device relative to a display device; and
activating one or more pixels of the display device based on the distance of the first and second ends of the user-input device relative to the display device.

13. The method of claim 12, comprising receiving information regarding an angle of the first end of the user-input device relative to the display device.

14. The method of claim 12, comprising determining the distance of the user-input device relative to the display device using triangulation.

15. The method of claim 12, further comprising determining an orientation of the user-input device relative to the display device.

16. The method of claim 15, further comprising activating the one or more pixels based on the orientation of the user-input device.

17. An article comprising one or more machine-readable storage media containing instructions that when executed enable a processor to:

determine a position of a first end and a second end of a user-input device in the user-input device; and

illuminate one or more pixels of a display device based on the position of the user-input device.

18. The article of claim 17, wherein the instructions when executed enable the processor to determine an orientation of the user-input device.

19. The article of claim 18, wherein the instructions when executed enable the processor to determine the speed of the user-input device as it is moved.

20. The article of claim 19, wherein the instructions when executed enable the processor to illuminate the one or more pixels based on at least one of the orientation and speed of the user-input device.

21. The article of claim 17, wherein the instructions when executed enable the processor to detect an activation of an activatable element and to illuminate the one or more pixels based on the activation of the activatable element.

22. The article of claim 21, wherein the instructions when executed enable the processor to provide at least one of sound, air and light in response to the activation of the activatable element.

23. The article of claim 21, wherein the instructions when executed enable the processor to control the intensity of the illumination based on the amount of depression of the activatable element.

24. The article of claim 17, wherein the instructions when executed enable the processor to determine the position of the user-input device using triangulation.

25. The article of claim 17, wherein the instructions when executed enable the processor to determine the position of the user-input device based on an identifiable marking on the display device.

26. A system, comprising:
a user-input device comprising a controller to receive one or more signals from a plurality of sensors located on a display device of a processor-based system, transmit information to the processor-based system regarding a position of the user-input device, and cause one or more pixels of the display device to activate based on the transmitted information.

27. The system of claim 26, wherein the controller is coupled to transmit information to the processor-based system regarding at least one of orientation and speed of the user-input device.

28. The system of claim 27, wherein the controller is coupled to cause the one or more pixels to activate based on at least the transmitted information regarding the orientation and speed of the user-input device.

31. A digital airbrush peripheral, comprising:
a housing;
a display coupled to the housing, to indicate a currently active digital paint color;
an activatable element coupled to the housing, to activate the digital airbrush peripheral;

a control unit to cause air to be generated in response to an activation of the activatable element; and

an interface coupled to the activatable element, to communicate information regarding the activatable element to a data processing device.

33. The digital airbrush peripheral of claim 31, comprising an air generator to generate air in response to a selection of the activatable element.

34. The digital airbrush peripheral of claim 31, comprising one or more sensors to sense information regarding the position of the digital airbrush peripheral.

35. The digital airbrush peripheral of claim 31, comprising a processor to cause a light to be emitted from the digital airbrush peripheral, wherein the light indicates the color of digital paint.

36. The digital airbrush peripheral of claim 31, comprising a processor to generate one or more sounds in response to a selection of the activatable element.

37. The digital airbrush peripheral of claim 31, wherein the activatable element is coupled to control an intensity of a digital spray on the display.



EXHIBIT A

Merriam- Webster's Collegiate[®] Dictionary

TENTH EDITION

Merriam-Webster, Incorporated
Springfield, Massachusetts, U.S.A.

b : the emc
guished from
sen-ti-men-t
erred by for